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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Katsuya Ogawa

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EXAMINER

CAPUTO, LISA M

ART UNIT

PAPER NUMBER

2876

DATE MAILED: 08/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/692,849

Applicant(s)

OGAWA, KATSUYA

Examiner

Lisa M Caputo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Amendment

1. Receipt is acknowledged of the amendment filed 7 June 2004.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 6-8, and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuyama (U.S. Patent No. 5,363,296) in view of Mochida et al. (U.S. Patent No. 4,428,024, from hereinafter "Mochida").

Fuyama teaches an electronic cash register having macro-keys. Further, Fuyama discloses that FIG. 1 is a block diagram of an arrangement of an electronic cash register in accordance with a first embodiment of the present invention, which includes a keyboard 1-1, a mode switch 1-2, an arithmetic operation controller 1-3, a memory 1-4, and a display unit 1-5. Arranged on the keyboard 1-1 are such necessary keys as a ten-key, an item registration key, a total key, a subtotal key and macro keys so that, when one of such keys is operated, a key code corresponding to the operated key is generated and provided to the arithmetic operation controller 1-3. The arithmetic operation controller 1-3, which has a read-only memory (ROM) therein, stores in the ROM programs for processing various transactions or operations for the present

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electronic register. Connected to the arithmetic operation controller 1-3 are, in addition to the keyboard 1-1, the mode switch 1-2, the memory 1-4 and the display unit 1-5. The mode switch 1-2 is used to designate the operational mode of the electronic register such as registration (REG), manager registration (MGR), inspection (X), account adjustment (Z) or set (P). Data for the mode switch, prior to starting the respective transaction processing programs, are read out by the arithmetic operation controller 1-3. An outside appearance of the mode switch 1-2 is shown in FIG. 2. The memory 1-4 has such an interior structure as shown in FIG. 3, that is, has a work area 3-1 for interior calculation, an operator information file 3-2 for storing therein a manager level and a name in association with the ID of each operator, a macro key information file 3-3 for storing therein, when a key code entered from the keyboard 1-1 is from the macro key, macro key information for prescribing the operation of the macro key in association with the associated macro key number, an item information file 3-4 for storing therein item names and unit prices associated with respective item codes so that an item code entered from the keyboard can be read out for its item registration, and a report data file 3-5 for storing therein report data...A second embodiment is shown in FIG. 13. The second embodiment includes, in addition to the constituent elements of the first embodiment of FIG. 1, a clock LSI 13-6 newly provided. With the present arrangement, an arithmetic operation controller 13-3 can read a time from the clock LSI 13-6. FIG. 17 is a buffer for storing therein a key operating time within the work area. The buffer has fields of year (17-1), month (17-2), day of the month (17-3), day of the week (17-4) and hour/minute (17-5) at which the operator operates the electronic register. Explanation

will be made as to the operation of the second embodiment. In the present embodiment, a time range check code can be set as the macro key set data so that the operation of the associated macro key can be made valid only in an operation allowable time band corresponding to the time range check code of the macro key. Shown in FIG. 18 is a structure of the time range check code set in a memory 13-4 of the electronic register as the macro key information. The data of the time range check code includes a function code (92) 18-1 indicative of the time range check code and a time range data 18-2. The time range check code is set in the memory 13-4 as the macro key information according to the flowchart of FIG. 9 in the same manner as in the first embodiment. For example, when it is desired to set a time range of from "9:30" to "10:00" as the macro key operation allowable time band, the operation of the step 9-5 causes data "9209301000" to be written in the macro key setting field 4-1.

FIG. 24 is a flowchart for explaining the operation of reading a key code from the keyboard 13. More in detail, when each key is operated on the keyboard 13-1, this causes a key code corresponding to the operated key to be generated and sent to the arithmetic operation controller 13-3. The arithmetic operation controller 13-3 judges whether or not the associated key code is from a macro key (step 24-1). When determining that the key code is not from the macro key, the arithmetic operation controller executes the associated processing program corresponding to the key code as the code of the non-macro-key in the same manner as in the prior art (step 24-2). When the key code is from the macro key, the controller reads time data from the clock LSI 13-6 and stores it in the key operation time storage buffer (FIG. 17) in the work area

(step 24-3). The controller performs the subsequent operations (1) to (6) as in the first embodiment 1. (1) The controller reads set data corresponding to the associated macro key from the macro key setting file 3-3 and writes it in the work areas 5-1 and 5-2 for use of internal calculation (step 24-4). (2) The controller checks the set data counter 5-2 for the set data written on the work areas (step 24-5). When determining that the counter is not 0, since this means the macro set data for the associated macro key is not set yet, the controller terminates the reading operation of the macro key in question. (3) When the set data counter 5-2 is not 0 in the above Paragraph (2), the controller sets the step counter 5-3 at 1 and also sets the macro key processing flag 5-4 indicative of the macro key processing being activated (step 24-6). (4) The controller reads the macro key set data 5-1 at the address corresponding to the step counter 5-3 (step 24-7) and executes the associated processing in the same manner as the macro key set data processing of FIG. 25 (step 24-8). After the above execution, the controller compares the value of the step counter 5-3 with that of the set data counter 5-2 (step 24-9). When finding a coincidence therebetween, which indicates the end of the final set data, the controller goes to a Paragraph (6) (to be explained later) to terminate the operation of reading the macro key in question. (5) When the controller fails to find the coincidence between the value of the step counter 5-3 and that of the set data counter in the above Paragraph (4), the controller adds 1 to the step counter 5-3 (step 24-10) and goes again to the above Paragraph (4). (6) The controller resets the macro key processing flag 5-4 indicative of the macro key processing being activated (step 24-11) and terminates the macro key reading operation in question. FIG. 25 shows a flowchart for explaining the

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macro key set data processing (step 24-8) in FIG. 24. As already explained in the above Paragraph (4), the controller reads the macro key set data at the address corresponding to the step counter 5-3, and then judges whether or not the set data indicates the time range check code (step 25-1). When the present data is not the time range check code, the controller executes the other-key code processing (step 25-6). When the present data is the time range check code, the controller reads the operation time data 17-5 from the key operation time storage buffer (FIG. 17) in the work area (step 25-2) and then compares the operation time data 17-5 of the macro key in question with the operation allowable time band corresponding to the time range check code of the macro key (step 25-3). When the macro key operation time is within the operation allowable time band corresponding to the time range check code of the associated macro key, the controller terminates the time range check code processing. When the macro key operation time is out of the operation allowable time band corresponding to the time range check code of the associated macro key, the controller stores the value of the set data counter 5-2 in the step counter 5-3 (step 25-4), transfers an error message to the display 13-5 (step 25-5), and then terminates the macro key set data processing (see Figures 1-25, col 6 line 40 to col 11 line 60). Hence, regarding independent claims 1, 6, and 11, Fuyama discloses a keystroke trapping system, method, and program that utilizes a clock to determine the date limit count of the use of a key.

Regarding claims 1-3, 6-8, and 11-13, although Fuyama teaches the means for determining the function key limits, Fuyama does not specifically disclose that a 1 is added to a counter if the coincidence is found.

Michado teaches an electronic door locking system. Michado discloses that in the door locking operation, although the first comparator 15 also outputs a signal to advance the counter 16, since only one of the push-button switches 10a-10e has been depressed, the retriggerable multivibrator 22 is reset after a predetermined period of time and the counter 16 is reset, so that the unlocking command signal is not generated (see Figure 1, col 6). Hence, Michado teaches an application where the counter is advanced by adding a 1.

Hence, in view of the teaching of Michado, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the system so that a 1 is added to the counter if a coincidence is found because this is a conventional way of being able to keep track of keystrokes, and since a limiting counter is used, one is able to also compare the limit counter with a corresponding limit count in order to ensure that the system runs smoothly. It is appropriate to combine Michado with Fuyama because Michado teaches the conventional limitation of employing an increasing counter to the system of Fuyama, who already deals with limits.

3. Claims 4-5, 9-10, and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuyama as modified by Mochida and further in view of Tanaka (U.S. Patent No. 4,935,608). The teachings of Fuyama as modified by Mochida have been discussed above.

Regarding claims 4-5, 9-10, and 14-15, although Fuyama/Mochida does teach certain pertinent macro keys such as total, subtotal, and cashier, Fuyama/Mochida fails

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to specifically teach the Cancel key, Clear key, Void key, No Sale key, and Transaction Void key.

Tanaka teaches a card authorization terminal. Tanaka discloses a key arrangement in Figure 3 including ten-keys 12, a set key 113, and a clear key 114 (see Figure 3, col 3, lines 25-35). It is well known in the art that keys such as Void, Cancel, Transaction Void, and No Sale are art recognized equivalents to clear and set keys.

In view of the teaching of Tanaka, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ function numbers for such keys as Cancel, Clear, Void, Transaction Void, and No Sale because these keys are conventional and are well known in the art to be components of a cash register keyboard system. These keys are helpful in efficient transactions and thus are favorably included in the system.

Response to Arguments

4. Applicant's arguments with respect to claims 1-15 have been considered but are moot in view of the new ground(s) of rejection.

5. Examiner appreciates applicant's argument that Fuyama does not teach or disclose adding 1 to a limit counter or comparing a value of a limit counter to a corresponding limit count as recited in independent claims 1, 6, 11, and their dependent claims and has cited new prior art in the form of Mochida. However, it is submitted that Fuyama does indeed teach the use of a time range check code that acts as a limit count because it regulates the amount of keystrokes for a particular day.

6. In response to applicant's arguments regarding claims 4, 9, and 14, that Tanaka is not sufficient to teach the four separate keys, examiner respectfully disagrees. It is respectfully submitted that Tanaka teaches a plurality of conventional keys (i.e. ten-keys, a set key, etc.), one of which is the "Clear" key. Although not specifically enumerated, the other keys, such as a Cancel key, Void key, No Sale key, or Transaction Void key, are indeed functional equivalents of these other conventional keys and are well known in the art to be a part of transaction systems and apparatuses. Hence, it is obvious to be able to use these keys in a system.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Lisa M. Caputo** whose telephone number is **(571) 272-2388**. The examiner can normally be reached between the hours of 8:30AM to 5:00PM Monday through Friday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached at **(571) 272-2398**. The fax phone number for this Group is (703) 872-9306.

Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [**lisa.caputo@uspto.gov**].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


LMC

August 20, 2004



THIEN M. LE
PRIMARY EXAMINER